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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,950	12/04/2003	Ramnath N. Iyer	EP-7596	7388
34769 7590 11/02/2007 NEW MARKET SERVICES CORPORATION (FORMERLY ETHYL CORPORATION) 330 SOUTH 4TH STREET RICHMOND, VA 23219			EXAMINER LANG, AMY T	
			ART UNIT 3731	PAPER NUMBER
			MAIL DATE 11/02/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

CT

**Office Action Summary**

Application No.

10/727,950

Applicant(s)

IYER ET AL.

Examiner

Amy T. Lang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-7,9-11,13-19,23 and 25-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, 9-11, 13-19, 23, and 25-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. **Claim 3** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 3 recites wherein the thiadiazole is substituted with a hydrocarbon group. Although applicant argues that the hydrocarbyl prefix in claim 1 encompasses a hydrocarbon group it is the examiner's position that claim 3 is still not supported by the specification. The thiadiazole in claim 1 is selected from hydrocarbyl substituted thiadiazole compounds (a through d). Claim 3 then states wherein the thiadiazole is substituted with a hydrocarbon group. Therefore the hydrocarbyl substituted thiadiazole compound in claim 1 is further substituted with a hydrocarbon group in claim 3. However, the instant specification does not support this second substitution.

3. **Claims 1, 11, 19, and 26-28** are rejected are under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in

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such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1, 11, 19, and 26-28 all comprise the coefficient of friction range from about 0.0758 to about 0.090. However, the instant specification does not support this range. The specification only supports an amount sufficient to provide a coefficient of friction of about 0.085 or greater (page 2, lines 12-15) or in amount of 0.095 wt% to produce a low pulley coefficient of friction of 0.0758 (Table 1).

4. **Claims 26 and 28** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 26 and 28 positively recite a method for lubricating a gear or transmission to achieve a specific coefficient of friction. However, the instant specification only supports a specific coefficient of friction at a certain weight percent (Table 1 of the specification). Therefore, the applicant is advised to claim a specific coefficient of friction at a specific weight percent, as supported by the specification.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1, 3-7, 9-11, 13-19, 23, and 25-28** are rejected under 35

U.S.C. 102(b) as being anticipated by Ward (US 6,251,840 B1).

With regard to claims **1, 3-5, 7, 9-11, 13-14, 16-19, 23, and 25-28** Ward discloses a lubricating composition for use as a transmission fluid, including a continuously variable transmission, which inherently encompasses steel-on-steel contact (column 1, lines 12-17). A specific useful base oil is disclosed as mineral oil in an amount greater than 80 wt% (column 2, lines 30-33, 47-52). The composition further includes 2-hydrocarbyldithio-5-mercapto-1,3,4-thiadiazole, 2,5-bis-(hydrocarbyldithio)-1,3,4-thiadiazole, products from combining an oil soluble dispersant with 2,5-dimercapto-1,3,4-thiadiazole, and mixtures thereof (column 4, lines 38-62).

Ward does not disclose (i) the coefficient of friction of the lubricating composition or (ii) the composition as having improved steel-on-steel properties.

With respect to (i) above, the disclosed thiadiazoles are present in the lubricating composition from 0.025 to 5 wt% (column 4, lines 38-39). Since the instant specification provides evidence that this amount is sufficient to provide a

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coefficient of friction of at least 0.0758, Ward clearly overlaps the instant claims (see Table 1 of Spec).

With respect to (ii) above, since Ward discloses the same lubricating composition as is instantly claimed, the disclosed composition would intrinsically display the same steel-on-steel friction properties.

With regard to **claims 6 and 15**, the transmission is only functionally recited. It is irrelevant as to the type of transmission the lubricating composition is intended to be used with.

### ***Response to Arguments***

7. Applicant's arguments filed 4/9/2007 have been fully considered but they are not persuasive.

Specifically, applicant argues (A) that Ward discloses synthetic oils as the preferred base oil.

With respect to argument (A), Ward clearly states that natural and synthetic lubricating oils can be used in the composition (column 2, lines 30-33). Mineral oil is a specific natural oil disclosed by Ward (column 2, lines 53-55).

Specifically, applicant argues (B) that nothing in Ward teaches, discloses, or suggests a method for achieving a low pulley coefficient of friction ranging from about 0.0758 to 0.090 for steel-on-steel contact as measured by a Van Doorne push-belt CVT.

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With respect to argument (B), Ward discloses the same thiadiazole as claimed in an amount from 0.025 to 5 wt%. The instant specification provides evidence that this amount of the thiadiazole compound provides a coefficient of friction of at least 0.0758 in a Van Doorne push-belt CVT dynamometer test (see Table 1 of the specification). Therefore, the coefficient of friction is inherent to the composition disclosed by Ward so that Ward clearly overlaps the instant claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy T. Lang whose telephone number is 571-272-9057. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Todd Manahan can be reached on 571-272-4713. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

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free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

10/31/2007

ARL

A large, stylized handwritten signature in black ink, appearing to read 'Todd E. Manahan'.

Todd E. Manahan  
SPE 3731